

We claim:

1. A method of fabricating a display structure comprising:

coupling a frontplane to a backplane wherein a frontplane top surface laminates to a backplane top surface, said frontplane and said backplane are fabricated separately, said frontplane further includes a frontplane substrate and said backplane further includes a backplane substrate, wherein;

a first electrode layer which is transparent is disposed over said frontplane substrate;

a display medium which produces electro-optical effects upon a voltage application is disposed over said first electrode;

a second electrode layer which is patterned is disposed over said display medium, said second electrode layer includes a plurality of connecting regions; and

said backplane is electrically active to provide driving signals for said display medium wherein said backplane substrate includes a plurality of output pads to match said plurality of connecting regions.

2. A method as in claim 1 wherein said display structure is a flat panel display structure and wherein said electrical signals drive pixels images of said flat panel display structure.
3. A method as in claim 1 wherein said backplane is one of an active matrix array of thin films transistors and an active matrix array of diodes.

10020335 120601

4. A method as in claim 1 wherein said backplane substrate includes a plurality of functional blocks which further includes said plurality of output pads to match said plurality of connecting regions.
5. A method as in claim 4 wherein each of said plurality of functional blocks is a NanoBlock <sup>TM</sup>.
6. A method as in claim 1 wherein said display medium is an electroluminescent medium.
7. A method as in claim 6 wherein said electroluminescent medium is made of any one of organic light emitting diode organic materials, light emitting polymer materials, polymer light emitting diodes, and thin film electroluminescent displays.
8. A method as in claim 1 wherein said display medium is formed from a solid film.
9. A method as in claim 1 further comprising:  
coating said plurality of output pads with an insulation layer having plurality of vias.
10. A method as in claim 9 further comprising :

10020385 120601

forming conductive adhesive deposits over said first plurality of vias, said conductive adhesive deposits establish said driving signals.

11. A method as in claim 1 wherein said second electrode layer is transparent.
12. A method as in claim 1 wherein said first electrode layer is an anode layer made out of a transparent conducting material.
13. A method as in claim 1 wherein said first electrode layer is made of a high workfunction material.
14. A method as in claim 1 wherein said second electrode layer is made of a low workfunction material.
15. A method as in claim 1 wherein said first electrode layer is any one of an indium tin oxide and a mixture of indium oxide and tin oxide material.
16. A method as in claim 1 wherein said second electrode layer is made from any one of an aluminum, a calcium, and a magnesium.
17. A method as in claim 1 wherein said frontplane substrate is made out of anyone of a silica, glass, transparent polymer, sapphire, quartz, and transparent plastic.

10020385-120601

18. A method as in claim 1 wherein said backplane substrate is made out of material selected from the group consisting of ceramic, glass, plastic, silicon wafer, gallium arsenide wafer, silica, and metal.
19. A method as in claim 1 wherein said backplane substrate is any one of a rigid substrate and a flexible substrate.
20. A method as in claim 9 further comprising:  
coating a pressure sensitive conductive layer over said plurality of output pads;  
treating said pressure sensitive conductor layer such that said pressure sensitive conductor layer includes conducting regions and nonconducting regions, said conducting regions matching with said plurality of output pads and said connecting regions.
21. A method as in claim 20 wherein said pressure sensitive conductor layer is a patternable pressure sensitive adhesive wherein said treating includes patterning said patternable pressure sensitive adhesive.
22. A method as in claim 20 wherein said pressure sensitive conductor layer is a Z-direction conductive film conducting only in a perpendicular direction to a top surface and a bottom surface of said Z-direction conductive film.
23. A display structure comprising:

10020385-120601

a frontplane coupling to a backplane a first top surface of said frontplane laminates to a second top surface said backplane, said frontplane and said backplane are fabricated separately, said frontplane further includes a frontplane substrate and said backplane further includes a backplane substrate, wherein;

a first electrode layer which is transparent is disposed over said frontplane substrate;

a display medium which produces electro-optical effects upon a voltage application is disposed over said first electrode;

a second electrode layer which is patterned is disposed over said display medium, said second electrode layer includes a plurality of connecting regions; and

said backplane is electrically active to provide driving signals for said display medium wherein said backplane substrate includes a plurality of output pads to match said plurality of connecting regions.

24. A display structure as in claim 23 wherein said electroluminescent display structure is a flat panel display structure and wherein said electrical signals drive pixels of said flat panel display structure.

25. A display structure as in claim 23 wherein said backplane is one of an active matrix array of thin films transistors and an active matrix array of diodes.

10020385-12001  
1090215890201

26. A display structure as in claim 23 wherein said backplane substrate includes a plurality of functional blocks which further includes said plurality of output pads to match said plurality of connecting regions.
27. A display structure as in claim 26 wherein each of said plurality of functional blocks is a NanoBlock <sup>TM</sup>.
28. A display structure as in claim 23 wherein said display medium is an electroluminescent medium.
29. A display structure as in claim 28 wherein said electroluminescent medium is made of any one of organic light emitting diode organic materials, light emitting polymer materials, polymer light emitting diodes, and thin film electroluminescent displays.
30. A display structure as in claim 23 wherein said display medium is formed from a solid film.
31. A display structure as in claim 23 further includes an insulation layer having a plurality of vias formed over said plurality of output pads.

10020385-10601

32. A display structure as in claim 31 further includes conductive adhesive deposits formed over said first plurality of vias, said conductive adhesive deposits establish said driving signals.
33. A display structure as in claim 23 wherein said second electrode layer is transparent.
34. A display structure as in claim 23 wherein said first electrode layer is an anode layer made out of a transparent conducting material.
35. A display structure as in claim 23 wherein said first electrode layer is any one of an indium tin oxide and a mixture of indium oxide and tin oxide.
36. A display structure as in claim 23 wherein said first electrode layer is made of a high workfunction material.
37. A display structure as in claim 23 wherein said second electrode is made of material having a low workfunction value.
38. A display structure as in claim 23 wherein said second electrode layer is made from any one of an aluminum, a calcium, and a magnesium.

10020385-120601

39. A display structure as in claim 23 wherein said frontplane substrate is made out of anyone of a silica, glass, transparent polymer, sapphire, quartz, and transparent plastic.
40. A display structure as in claim 23 wherein said backplane substrate is made out of material selected from the group consisting of ceramic, glass, plastic, silicon wafer, gallium arsenide wafer, silica, and metal.
41. A display structure as in claim 23 wherein said backplane substrate is any one of a rigid substrate and a flexible substrate.
42. A display structure as in claim 31 further comprising a pressure sensitive conductive layer coated over said plurality of output pads, said pressure sensitive conductor layer is treated such that said pressure sensitive conductor layer further includes conducting regions and nonconducting regions, said conducting regions matching with said plurality of output pads and said connecting regions.
43. A display structure as in claim 42 wherein said pressure sensitive conductor layer is a patternable pressure sensitive adhesive wherein said patternable pressure sensitive conductor layer is patterned to include said conducting regions and said nonconducting regions to match said plurality of said connecting regions.

10020385 170601



44. A display structure as in claim 42 wherein said pressure sensitive conductor layer is a Z-direction conductive film conducting only in a perpendicular direction to a top surface and a bottom surface of said Z-direction conductive film.

10020385 120601